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ARE WE REALLY FREE? A BIBLICALLY BASED RESPONSE TO NEUROPHYSIOLOGICAL REDUCTIONISM[1]

Richard Rice
Loma Linda University
Loma Linda, California

"Whether I shall turn out to be the hero of my own life," says Dickens's David Copperfield, "or whether that station will be held by anybody else, these pages must show." Are we the heroes of our own lives? Or are they determined by something else? The more various sciences tell us about human behavior today, the more they attribute what we do, and think, and feel to factors outside our control. They seem to leave little room for anything like a "soul" or "self"—for the notion that we are not only physical beings in a physical world, but to some extent self-determined.

According to one geneticist, the "specter of genetic determinism" is "probably the source of more public concern than any other question about human nature. Are we merely the product of our genes, directly and indirectly? In what sense are we free to act and behave in ways that result from our own choices?"[2] Religion scholar Martin Marty agrees. "The most urgent agenda item on the religion-and-science front," he says, is not cosmology or evolution, but "scientific understandings of the brain, consciousness, will." "Reduce humans to the chemistry of neuron firings in the brain, and you have crossed a new line. The human is then 'nothing but' this or that."[3]

Instances of violent behavior give the question special urgency. After the shootings at Virginia Tech in 2007, columnist David Brooks wondered if the student responsible was really responsible. Was he in control of his actions, or was he "like a cork bobbing on the currents of giant forces: evolution, brain chemistry, stress and upbringing"? The question applies to all of us. Is there anything to the qualities we typically associate with authentic humanity—qualities that go beyond the mere capacity to experience, to respond to stimuli, and include the abilities to reflect, decide, act, and assume responsibility. Are human beings free and responsible,

[1]A version of this essay was originally prepared for the Venice Summer School on Science and Religion, 2009: Evolution and Human Uniqueness.

[2]V. Elving Anderson, "A Genetic View of Human Nature," in *Whatever Happened to the Soul*, ed. Warren S. Brown, Nancey Murphy, and H. Newton Malony (Minneapolis: Fortress, 1998), 68.

[3]Martin Marty, "Against Reductionism," *Sightings*, 23 April 2007 (http://divinity.uchicago.edu/martycenter/publications/sightingsarchive_2007/0423.shtml).

centers of consciousness and bearers of great value? Are we persons, selves, in anything like the conventional sense of these terms? In other words, are we really free?

Scientific Reductionism

For some people, the scientific study of human behavior provides a clear answer to the question of freedom, and the answer is No. As they see it, neuroscience demonstrates that humans are thoroughly embodied, and everything about them is therefore determined. Not only is the mind inseparable from the body, but everything there is to us, including all our mental activity, has a physical explanation. What is often referred to as "folk psychology," then, the common-sense view that we are somehow distinct from our bodies, in charge of our thoughts and actions at least to some extent, turns out to be a mistake.

Philosopher Ted Honderich is one who believes that neuroscience contains "more than enough clear hard facts" to settle the time-honored issue of freedom and determinism. Mental events are intimately related to neural events, and there are no gaps in the brain's history. Every psychoneural pair is the direct effect of a previous state of affairs, forming a continuous causal stream that extends back beyond the first moment of consciousness. There is nothing between these events, nor is there anything beyond them. Since our minds consist entirely of neural events, he argues, there is no ongoing "self" or "person" who does the choosing, deciding, and acting. Indeed, the very idea of such a thing is an "embarrassment."[4]

Few state this position so starkly, but others, too, hold that mental states are entirely reducible to brain states. Paul and Patricia Churchland, for example, are advocates of "eliminative materialism." Neuroscientific categories will never explain our common-sense concept of the self, they argue, not just because it is difficult to do, but because the very attempt to do so rests on a mistake. From what neuroscience has already shown us, they maintain, we can be confident that it will eventually demonstrate that there is no such thing as the conventional notion of self, soul, or person,[5] so we should abandon the concept entirely. Along with now-discarded concepts like phlogiston and crystalline spheres, the concept of the self is destined for elimination. The time is coming when no one will believe in such a thing.[6]

Daniel Dennett takes another path to the same conclusion. To be consistent, he argues, those who accept evolution as an explanation for the

[4]Ted Honderich, *How Free Are You? The Determinism Problem* (Oxford: Oxford University Press, 1993), 35.

[5]Paul M. Churchland, *Matter and Consciousness*, rev. ed. (Cambridge: MIT Press, 1988), 43.

[6]Ibid., 44.

development of life on this planet should also accept the idea that every aspect of life, including all of human life, has a material explanation. For Dennett, "Darwin's dangerous idea" is a "universal solvent," and there is no limit to its application, no "cut off" point where evolutionary accounts end and human qualities and characteristics begin. All our mental functions therefore have physical explanations. The factors that account for every other aspect of life's history—descent with modification by means of natural selection—can account for all the features of human life, including thought, decision, and action. Darwinism thus dissolves "the illusion of our own authorship, our own divine spark of creativity and understanding."[7]

Invoking his favorite metaphor, Dennett argues that we should look for "cranes" rather than "skyhooks" to explain human behavior, including everything the word "mind" traditionally applies to. As he envisions the Darwinian universe, there are no skyhooks, no miraculous lifters reaching down from outside the system. Cranes do all the lifting, and they rest firmly on the ground. Nothing contributes to the process that is not part of the process; nothing stands outside the incremental accomplishments of natural selection. "If we commit ourselves to Darwin's 'strange inversion of reasoning,'" Dennett argues, "we [must] turn our backs on compelling ideas that have been central to the philosophical tradition for centuries . . . [including] Descartes's *res cogitans* [thinking substance] as a causer outside the mechanistic world."[8]

As Dennett sees it, however, this doesn't diminish the significance of the mind, for the mind is not only produced by cranes, it is a powerful crane itself, indeed, "the crane to end all cranes."[9] Equipped with habits and methods, mind-tools and information, human brains are capable of complex activity, and their enormous effectiveness surpasses every other form of life.[10] Nevertheless, everything about us, including consciousness and free will, is ultimately attributable to the process of physical transformation that Darwin described. There is no feature of human life that cannot be accounted for by the incremental advance of complex *physical* phenomena. Like the Churchlands, Dennett concludes not only that we are not significantly free, but that there is no "we" as we conventionally think of ourselves.

Whatever the evidence that supports determinism, something in us deeply resists it. (Even Honderich admits that the idea gets him down). And the problem with determinism seems to be precisely what Honderich and

[7]Daniel C. Dennett, *Darwin's Dangerous Idea: Evolution and the Meanings of Life* (New York: Simon & Schuster, 1995), 63.

[8]Daniel C. Dennett, "In Darwin's Wake, Where Am I?" *Proceedings and Addresses of the American Philosophical Association,* 75/2 (November 2001): 23.

[9]Dennett, *Darwin's Dangerous Idea*, 379.

[10]Ibid., 383.

the Churchlands take to be its strength, namely, the fact that it eliminates the notion of the self. Eliminate freedom, we cannot help but feel, and something essential to our humanity goes out the window with it. As Gary Watson puts it, "The problem of free will is . . . the problem of finding room in the world for ourselves." It is part of the "general difficulty in bringing together our views of ourselves both as moral beings and as creatures of nature."[11] The challenge that neurophysiological reductionism presents to us, therefore, is whether we can account for both features that seem essential to human experience: the fact that we are undeniably physical beings in a physical world *and* the conviction that we are free and self-determined.

The Human in Christian Perspective

Materialistic, reductionistic views of the self not only arouse existential resistance, they also contradict the deep-seated religious conviction that human beings are unique among earth's inhabitants. From the perspective of Christianity, human beings belong to the natural order, but the characteristics that distinguish them from other forms of life are not only differences in degree but differences in kind, and they confer special abilities and special dignity. As creatures in the image of God, humans reflect the personal qualities of God's own self; they reflect, decide, and act, and bear responsibility for their decisions and actions.

There are different ways to account for human uniqueness. For centuries the "default" explanation[12] has been dualism—the idea that the true seat of human identity is something nonphysical, an immaterial "mind" or "soul" that somehow connects with the physical body, but is not dependent on it. There is a long history of philosophical reflection on the soul thus conceived and how it relates to the body. Dualism comes in Platonic, Thomistic, and Cartesian varieties. And the idea has some staunch contemporary defenders as well, including influential thinkers such as Richard Swinburne[13] and J. P. Moreland.[14] But Seventh-day Adventists have never subscribed to the idea, and it has become less and less acceptable to thoughtful Christians generally.

One important reason is the fact that the Bible fails to support anything like an immaterial soul that supervenes upon or exists independently of the body. The widespread consensus among biblical scholars today is that dualism has no biblical support. The biblical words for "soul" apply to the

[11]Gary Watson, "Free Agency," in *Free Will,* ed. Gary Watson (New York: Oxford University Press, 1982), 14.

[12]I am indebted to Sigve Tonstad for this expression.

[13]Richard Swinburne, *The Evolution of the Soul* (Oxford: Oxford University Press, 1986), 145-160.

[14]J. P. Moreland and Scott B. Rae, *Body and Soul: Human Nature and the Crisis in Ethics* (Downers Grove: InterVarsity, 2000).

human person as a whole, a totality, not to some immaterial substance that is connected to the body during our lives and departs when we die. In the famous words of H. Wheeler Robinson, "The Hebrew idea of the personality is an animated body, not an incarnated soul."[15] More recent studies corroborate Robinson's view. In *Body, Soul, and Human Life: The Nature of Humanity in the Bible*, Joel B. Green draws his investigation to a close with the observation that "our identity is formed and found in self-conscious *relationality* with its neural correlates and embodied *narrativity* or formative histories. . . . [W]ho we are, our personhood, is inextricably bound up in our physicality." And death is "the cessation of one's body," "the conclusion of bodily life, the severance of all relationships, and the fading of personal narrative." This means that, at death, the person *really dies*." "[T]here is no part of us, no aspect of our personhood, that survives death."[16]

For Seventh-day Adventists, the Bible will always be the first and last court of appeal in matters of ultimate significance. But since we believe that nature and revelation ultimately agree, we also take seriously evidence that comes from other sources. It is not insignificant, therefore, that both scientific discovery and philosophical reflection provide reasons for affirming the uniqueness of human experience and the irreducible value of human existence.

Green's study of human nature is particularly interesting because it combines a careful analysis of biblical anthropology with a close look at contemporary neuroscience. This dual approach firmly closes the door to dualistic accounts of human uniqueness, but it opens the door to another. Although contemporary neuroscience anchors consciousness firmly within the physical structure and function of the brain, it also provides ways to account for human uniqueness.

The Evidence of Neuroscience

The more contemporary neuroscience discovers about the mind, the more apparent it is that mind and body—that mind and brain, to be specific—are inextricably connected. Thanks in large measure to their study of brain damage and degeneration victims, scientists have determined that psychological capacities are directly associated with particular locations in the brain. Depending on which area of the brain is involved, "very specific losses in the victim's psychological capacities typically result." They may lose the

[15]H. Wheeler Robinson, "Hebrew Psychology," in *The People and the Book: Essays on the Old Testament* (Oxford: Oxford University Press, 1925), 362; cited in John A. T. Robinson, *The Body: A Study in Pauline Theology* (Philadelphia: Westminster, 1952), 14.

[16]Joel B. Green, *Body, Soul, and Human Life: The Nature of Humanity in the Bible* (Grand Rapids: Baker Academic, 2008), 179, emphasis original.

ability to perceive colors, to recognize faces, comprehend speech, or lay down new memories.[17]

On the more positive side, "Specific types of cognition—perceptions, memories, emotions—do correlate with specific state changes in specific brain regions."[18] Studies of the prefrontal cortex of humans and monkeys through the use of electrodes and PET scanning have shown that specific areas of the brain are stimulated when certain mental activities occur. And the study of corticospinal excitability through the use of focal, single-pulse transcranial magnetic stimulation applied to the scalp indicates that various moods, the presence of sad or happy thoughts, are related to different hemispheres of the brain.[19] The list goes on, but the conclusion is clear. The human mind, with all its capacities, is inextricably connected to the brain. As Philip Clayton puts it, "There is no point in hiding one's head in the sands of a prescientific age that denied the dependence of the mental on the physical."[20]

With dualism no longer an option, those who wish to maintain anything like the Christian affirmation of human uniqueness must find another alternative to reductionistic materialism. And in recent years a number of scholars have been doing exactly that, especially those who identify their position as "non-reductive physicalism." Contra dualism, they assert, we are *fully* material: there is nothing about us that is not involved in the physical world. Contra reductionism, however, we are not *merely* material: there is more to human existence than physical processes can fully account for. Even though the distinctive features of human cognition are connected to the physical, they are somehow distinguishable from them.

From this perspective, biology and neuroscience are indispensable to our knowledge of the human, but they do not explain everything about us. When a brain exhibits the level of neurological complexity found in humans, these scholars argue, it supports a distinctive type of mental behavior. New qualities develop. Through self-awareness and self-transcendence a human being becomes self-directing, or free, in ways that reductionism cannot adequately account for. Among the scholars who have contributed to this perspective, Nancey Murphy and Clayton are especially well-known. Central to their account of human uniqueness are concepts like "supervenience," "emergence," and "downward causation."

[17]Churchland, 143.

[18]Philip Clayton, "Neuroscience, the Person, and God: An Emergentist Account," in *Neuroscience and the Person: Scientific Perspectives on Divine Action*, ed. Robert John Russell, Nancey Murphy, Theo C. Meyering, Michael A. Arbib (Berkley: Vatican Observatory Foundation, Center for Theology and the Natural Sciences, 2002), 189.

[19]Ibid., 184.

[20]Ibid., 189.

Reductionism implies that there is only one sort of causation, namely, bottom-up causation. The behavior of wholes can be explained entirely by the behavior of their parts, and every feature of an organism can be attributed to lower level factors. A careful analysis of the distinctive qualities of human mentality, however, does not support this explanation. Although there is nothing in human experience that does not depend on more simple forms of life, complex wholes exhibit qualities that cannot be explained by the laws that govern the behavior of their parts.[21] Consequently, bottom-up causation will not suffice; we need top-down causation, too.

Organisms from a single cell on up have the capacity of self-direction. They use information to evaluate their actions and adjust them "when feedback from the environment indicates a mismatch between the behavioral routine and their goals."[22] The more complex the organism, of course, the greater the degree of flexibility; it is much greater in mammals than in insects, for example. But on the level of human cognition something appears that we find nowhere else. Here we find the capacity to make our own behavior, our own cognitive strategy, the object of attention and evaluation.

Like all organisms, humans represent a "goal-seeking system," but they also have a "supervisory system" that monitors and evaluates how the system as a whole is behaving.[23] They can evaluate their evaluations, and adjust their behavior accordingly. This explains why human beings need a concept of the self. In order to engage in the distinctly human activity of evaluating one's own behavior, we need to distinguish between the self and the other, the non-self. And we need a "theory of mind," too, that is, the recognition that there are others who have thoughts and feelings as well as bodies.[24]

In spite of the fact that our cognitive activities have a neural basis, then, the laws of neurobiology do not account for all our activities. Our complex neural mechanism makes it possible for us to objectify ourselves and our behavior in light of certain standards or expectations, and to adjust our behavior in response. But since these higher-level evaluative processes alter neural structure, these abstract goals become "causal factors in their own right."[25] There is thus a dimension of human existence that is inextricably connected to our physical components, but cannot be reduced to them.

As Murphy uses the expression, "supervenience" conveys the idea that mental operations are dependent on physical ones—there would be no mind or

[21]Nancey Murphy, *Bodies and Souls, or Spirited Bodies?* (Cambridge: Cambridge University Press, 2006), 77.

[22]Ibid., 87.

[23]Ibid., 89.

[24]Ibid., 94.

[25]Ibid., 102.

"soul" without the brain—but are not reducible to them.[26] This is particularly true of "higher-level mental events, such as deciding, judging, reasoning."[27] The qualities that make us uniquely human thus exert an influence on the physical aspects of human existence. So, the physical provides an essential basis for the mental, and the mental exerts a transforming influence on the physical. Moral deliberation nicely illustrates the phenomenon. Moral reasons, Murphy observes, "can have top-down efficacy despite the presumed causal closure at the neurobiological level." For example, we can subject to moral supervision the fight-or-flight response that kicks in when we find ourselves in a threatening situation. Doing so may lead us to seek a nonviolent resolution of the conflict.[28]

Clayton employs the notion of "emergentist supervenience" as a way of conceptualizing the complex connections between the physical and the mental in human experience.[29] This concept underscores the fact that the brain is essential to all mental life. Neurological complexities make possible complex mental experience. At the same time, it acknowledges that there are aspects of human mentality that do not reduce to physical phenomena. There is "something more" to human life than neuroscience alone can account for. Not because neuroscientific accounts are deficient, but because they are insufficient—because "there are parts of what it is to be a person that lie in principle beyond their reach."[30]

In addition, "emergentist supervenience" points to the interaction between the physical and the irreducibly mental aspects of our experience. As Clayton describes it, the "causal line" moves from the physical inputs and the environment to the mental level, then along the line of mental causation, with one thought influencing another, and finally down again to influence other physical actions, to make new records and synaptic connections within the brain. Consequently, there is only one physical system—the mind is not a spiritual substance outside it—but higher level phenomena exercise a causal influence on the system as a whole.[31]

Emergent supervenience thus provides us with a "science" of the person of which neuroscience is one, but only one, contributing part.[32] It affirms that

[26]Nancey Murphy, "Supervenience and the Downward Efficacy of the Mental: A Nonreductive Physicalist Account of Human Action," in *Neuroscience and the Person: Scientific Perspectives on Divine Action*, ed. Robert John Russell, Nancey Murphy, Theo C. Meyering, Michael A. Arbib (Berkley: Vatican Observatory Publications, 2002), 151.

[27]Ibid., 155.

[28]Ibid., 163.

[29]Clayton, 202.

[30]Ibid., 188.

[31]Ibid., 196.

[32]Ibid., 188.

mental phenomena depend on physical phenomena, but it also points to the fact that mental experience alters the behavior and structure of the brain. So it denies "the reducibility of the mental to the physical."[33]

For non-reductionists such as Murphy and Clayton, then, human mental behavior exhibits qualities that neuroscientific explanations alone could never account for. We may share physical, social, and emotional characteristics with other forms of life on this planet. And we may be embodied in physical forms as they are, dependent on the external and internal physical resources that make life on any level possible. But our complex mental activities make us unique among all living things and distinguish our minds from our bodies, inseparable though they are. And these features provide a basis for affirming the person, or the self, as a reality with its own integrity as well as unique responsibilities and dignity. They support the notion that we ourselves, not our bodies, brains, or neurons, are the authors of our actions.[34] To answer David Copperfield's question, we are indeed the heroes of our own lives.

The Evidence of Philosophy

Besides the important discoveries of neuroscience, there is evidence of another sort that supports the biblical affirmation of human uniqueness, evidence that is philosophical rather than empirical in nature.

Suppose we make a basic philosophical move and think about thinking, or reflect on the activity of reflection. In fact, let's reflect on the work we just reviewed by both reductionists and non-reductionists on human mental life. It seems clear that participants on both sides of the issue share a basic assumption, whether they endorse reductive or non-reductive accounts of the person. And the assumption is this: the human mind has the ability to arrive at knowledge. Otherwise, what point would there be in conducting research, drawing conclusions, and formulating arguments? Once we are clear about this basic feature of our thought, the question as to which interpretation of the human mind is more adequate—reductionist or non-reductionist—takes a different form. For at this point, the question is not, which interpretation of the neuroscientific data is preferable, but which concept of the mind—reductionist or non-reductionist—better accounts for this fundamental epistemic or cognitive confidence?

When the issue is posed this way, the advantage clearly goes to the non-reductionist. Reductionistic materialism not only threatens any concept of the self, it calls into question the very possibility of knowledge. The very claim to know something affirms one's capacity to know, and this obviously entails the existence of the knowing self. Whenever a person examines evidence and draws conclusions, she implicitly affirms herself as the agent who does so,

[33]Ibid., 199.

[34]Murphy, *Bodies and Souls,* 109.

and this is true even when she insists that there is no such thing as agency! Paradoxically, the very act of denying the self presupposes the existence of the self who makes this denial.

Self-referential objections to determinism are well-known, of course. As J. R. Lucas puts it, determinism "cannot be true, because if it was, we should not take the determinists' arguments as being really arguments, but as being only conditioned reflexes. . . . Only a free agent can be a rational one."[35] John Eccles uses more colorful language. Determinists, he says, "have sawn off the 'rational' branch on which they like to think they are sitting. How long can this levitational delusion be perpetuated by wishful thinking?"[36]

For her part, Murphy exclaims, "If reductionism were true, no rational person could accept it because there would be no rational persons!"[37] In other words, if the human mind is what reductionists say it is, we would have no reason to be reductionists, for in that case our thoughts are physical events and nothing more.[38]

This self-referential argument assumes a more sophisticated form in what is generally described as "transcendental philosophy." According to a dictionary definition, transcendental philosophy examines "the a priori conditions of knowledge, which precede all experience of objects and which are the primary constituents of all objects of knowledge and hence make knowledge possible."[39] Transcendental philosophers explore the foundations of knowledge as such, both scientific and philosophical, and they hold that no account of knowledge will do unless it takes into account "the thinker's

[35]J. R. Lucas, *Freedom of the Will* (Oxford: Oxford University Press, 1970), see § "The Presupposition of Thought;" cited in John C. Eccles, *The Human Psyche* (Berlin: Springer International, 1980), 242.

[36]John C. Eccles, *The Human Psyche* (Berlin: Springer International, 1980), 242. At the same time, Eccles, 242, insists that "*all* materialist theories of the mind ultimately are reducible to determinism." This obviously puts him at odds with the conclusions of the nonreductive materialists we have mentioned.

[37]Murphy, *Bodies and Souls,* 109.

[38]Reductionists are aware of these objections to their position, of course, but they are predictably unimpressed by them. For Patricia Churchland, there is no contradiction in denying the self's existence once we dispense with the mistaken concept of the self. Change the framework and the conundrum of "believing there are no beliefs" will evaporate. Although the only theory readily available to us now is the common-sense view that there is a subject of our beliefs, desires, perceptions, sensations, and expectations (*Neurophilosophy: Toward a Unified Science of the Mind/Brain* [Cambridge: MIT Press, 1989], 299), she insists this does not mean that it cannot be replaced in the future with a more adequate account of our experience (ibid., 397).

[39]Hans Michael Baumgartner, "Transcendental Philosophy," in *Encyclopedia of Theology: The Concise Sacramentum Mundi,* ed. Karl Rahner (New York: Seabury, 1975), 1743.

own act of knowing."[40] Dispense with the knower and you have eliminated any basis for knowledge, any confidence in what the knower claims to know. In eliminating the self, reductionist materialists have eliminated any basis for confidence in their theory. Put succinctly, reductionism eliminates the reductionist. Or, to turn it around, the activity of reductionists refutes the theory of reductionism.

No one has pursued issues of this sort more extensively than philosopher Bernard Lonergan. In his most celebrated work, Lonergan undertakes a meticulous examination of human knowing in all its complexity. When we review all the operations in which the human mind engages, he argues, from sensing and perceiving, through inquiring and understanding, to reflecting and affirming, we find that all of them involve the self-affirmation of the knower.[41]

It is important to notice just how this self-knowledge is acquired. It is not achieved via a process of direct introspection of the sort that, for instance, H. D. Lewis invokes in *The Elusive Mind*. For Lewis, "mental processes are of a quite different nature from physical ones or any observable external reality." They "belong to an entity distinct from one's body and also from any particular feature in the course of our experiences."[42] For Lewis, then, we have the self on the one hand and the self's experiences on the other.

For Lonergan things are quite different. The self as he conceives it is not an entity apart from, or distinct from, one's experiences, but the self inextricably involved in all one's cognitive operations. "In Lonergan's method of introspection," notes Tracy, "one is not trying to 'move within' to capture some sudden, illuminating, confrontational and apparently spatial 'look' at the self-being-conscious-to-the-self." What is important for Lonergan is not the "looked-at," but the "looker," that is, the inquirer as conscious—empirically, intelligently, rationally, and existentially.[43] The "I" that derives its meaning from consciousness is "neither the multiplicity nor the diversity of contents and conscious acts but rather the unity that goes along with them."[44]

[40]Ibid., 1745.

[41]Bernard J. F. Lonergan, *Insight: A Study of Human Understanding* (New York: Philosophical Library Inc., 1970), 319.

[42]H. D. Lewis, *The Elusive Mind* (London: George Allen & Unwin, 1969), 320. Or, as he puts it in a later book, "in addition to states of mind distinct in nature from physical states but constantly interacting with them, there is also a subject, or a self or soul, which remains constant and is uniquely involved in all the flow of our mental states or experiences" (*The Elusive Self* [Philadelphia: Westminster Press, 1982], 40).

[43]David Tracy, *The Achievement of Bernard Lonergan* (New York: Herder and Herder, 1970), 102.

[44]Lonergan, 328.

From this careful analysis of consciousness, important conclusions follow. If I ask if I am a knower, and reflect on what is involved in knowing, "the fact of the asking and the possibility of the answering are themselves the sufficient reason for the affirmative answer."[45] Self-affirmation, therefore, is not a logical conclusion from prior premises, but the "explicitation" of what is already at work in the concrete activities of knowing.[46] Lonergan has a high estimate of such self-affirmation. It "can provide a secure and personally verifiable guide to all methodical and scientific activity," he says.[47] But most important for our purpose, he argues that such self-affirmation is unavoidable for anyone making cognitive claims, skeptics included.

To use Lonergan's expression, it gives factual self-affirmation the quality of necessity. "Am I a knower? The answer, Yes, is coherent, for if I am a knower, I can know that fact. But the answer, No, is incoherent, for if I am not a knower, how could the question be raised and answered by me?" Moreover, the answer, "I do not know," is equally incoherent. "For if I know that I do not know, then I am a knower; and if I do not know that I do not know, then I should not answer."[48] Any claim to knowledge, according to this line of reasoning, implicitly affirms the self as knower. The talking skeptic is thus mired in contradiction.[49]

The Evidence of Personal Courage

To deny the reality of the self as eliminative materialists do not only flies in the face of neuroscientific and philosophical evidence, it also comes at great personal cost. It would require us to deny qualities that are both essential to human existence and universally admired.

[45]Ibid.

[46]Cf. Tracy, 100-101.

[47]Tracy, 103.

[48]Lonergan, 329.

[49]Another "transcendental Thomist," Karl Rahner, makes the point this way. "Even when man would want to shift all responsibility for himself away from himself as someone totally determined from without," he is the one who does this. And in so doing, he "shows himself to be something other than the subsequent product of such individual elements" (*Foundations of Christian Faith: An Introduction to the Idea of Christianity,* trans, William V. Dych [New York: Seabury, 1978], 30-31.) Similarly, Gordon Kaufman notes, "even thorough-going materialisms are essentially structures of meanings and symbols." They are not simply collections of physical noises and marks on paper. Humans have created them in the course of history and intentionally used them in particular ways in order to guide human life in the world. They are "at once products and examples of *spirit*" (*In Face of Mystery: A Constructive Theology* [Cambridge: Harvard University Press, 1993], 259).

We began by noting that questions about freedom have immense practical, or personal, importance, so it makes sense as we consider them to consult the larger scale of human experience. And here, too—or here especially—we find important reasons to affirm human beings as selves, souls, or persons who are self-conscious and to some degree self-determined. Consider the cases of people such as Gerald Sittser and Victor Frankl. Sittser lost his mother, his wife, and one of his children in a horrible traffic accident. Frankl is a holocaust survivor. The reactions of these two men to their experiences are strikingly similar. Though they were victimized by forces beyond their control, though their freedom was severely restricted, we might say, they discovered that they were free nevertheless. They were free to respond to their situation, and they found enormous significance in their capacity to respond.

Frankl asks, "Is the theory true which would have us believe that man is no more than a product of many conditional and environmental factors—be they of a biological, psychological or sociological nature? Is man but an accidental product of these?" "We can answer these questions from experience as well as on principle. The experiences of camp life show that man does have a choice of action." "Man *can* preserve a vestige of spiritual freedom, of independence of mind, even in such terrible conditions of psychic and physical stress." "We who lived in concentration camps can remember the men who walked through the huts comforting others, giving away their last piece of bread. . . . [T]hey offer sufficient proof that everything can be taken from a man but one thing: the last of the human freedoms—to choose one's attitude in any given set of circumstances, to choose one's own way."[50] "It is this spiritual freedom . . . that makes life meaningful and purposeful."[51]

Sittser makes similar observations. "There is little we can do to protect ourselves from these losses," he notes. "There is much we can do, however, to determine how to respond to them. We do not always have the freedom to choose the roles we must play in life, but we can choose how we are going to play the roles we have been given."[52] Though not couched in scientific or philosophical terminology, these insights nonetheless bear on the subject of this discussion. The loss of freedom often leads people to appreciate how important freedom and self-determination are. And, paradoxically, the discovery that one's freedom is limited is itself an act of freedom.

To conclude, neuroscientific data and philosophical reflection provide support for the biblical concept of the self as free and self-determined.

[50]Victor Frankl, *Man's Search for Meaning*, rev. ed. (New York: Washington Square Press, 1985), 86.

[51]Ibid., 87.

[52]Gerald Sittser, *Grace Disguised: How the Soul Grows Through Loss* (Grand Rapids: Zondervan, 1996), 37.

Despite interpretations to the contrary, neuroscience leads many to conclude that mental states are not reducible to brain states, that human beings are self-directing and therefore significantly free. And even when people conclude from scientific data that we are not free, the very act of drawing this conclusion testifies that we are. Furthermore, our natural admiration for those who face great challenges courageously, and rise above tragic circumstances, adds intuitive evidence for the conviction that freedom as both a concept and a value is something we cannot live without. The biblical affirmation that human beings are both creatures and bearers of God's image—that they are finite, physical, *and* free—finds corroborating evidence in an impressive variety of sources.